

Application No.: 09/870,280

Docket No.: MWS-040RCE

**REMARKS**

Claims 1, 2, 4-9 and 11-36 are currently pending in the application. Claims 1, 4-7, 13, 14, 16, 17, 21, 25, 29 and 33-36 have been amended. Claim 3 has been canceled without prejudice. The subject matter of claim 3 has been incorporated in claims 1, 14, 21, 25, 29, 33-36. Claim 10 has been previously canceled. Claim 37 has been added. Support for this claim can be found at Figures 6-7. No new matter is introduced. Applicants believe that the pending claims are patentable and in condition for allowance. Applicants respectfully request reconsideration of the outstanding rejections in view of the comments set forth below.

**I. Claim Rejections under 35 U.S.C. § 102**

In the Office Action, claims 1-7, 11-14, 16-26 and 28-36 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Dwan et al., titled, "Introducing Simulink into a Systems Engineering Curriculum" (1993) (hereafter "Dwan").

Applicants respectfully traverse this rejection. For the ease of discussion, each related claim set is discussed separately below.

**A. Claim 1**

Dwan provides a short user's guide to Simulink®, a product of the Present Application's Assignee. Applicants respectfully submit that they are familiar with 1993 version of Simulink® and that it does not disclose a **composite signal preserving at least one attribute of each output signal**, as recited in claim 1.

The Examiner indicates the "mux" block of Simulink® illustrated in Dwan is equivalent to the multiplexer recited in claim 1 (Office Action, page 3, line 10-11). Applicants respectfully submit that in 1993 version of Simulink®, the mux block did not have the capability of outputting a composite signal that preserves at least one attribute of each signal forming the composite signal. In the earlier versions of Simulink®, the mux block was used to combine scalar and vector signals into larger vectors. 1993 version of Simulink® stored only one data type, i.e. one attribute, per signal line. Since the output of the mux block is a single line, 1993 version of Simulink® only stored a single attribute for the output. For example, if each of the input signals of the mux block had different attributes, only one attribute from the plurality of

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the input attributes was stored and then associated with the output signal, i.e. a single signal, of the mux block. Thus most of the attribute information present at the input of the mux block was purposefully lost. Consequently, Dwan, illustrating the 1993 version of Simulink®, does not disclose a **composite signal preserving the at least one attribute of each output signal**, as recited in claim 1.

Moreover, the Examiner indicates the “sum” block illustrated in Dwan discloses a composite signal (Office Action, page 3, line 11-14). The Examiner refers to the description of the composite signals provided in the Specification (Office Action, page 3, line 13-14). Applicants respectfully submit that the sum block does not bundle together its input signals into **an ordered set of signals to form a first composite signal**, as required by claim 1. The sum block of Dwan only performs addition or subtraction on its inputs. The sum block can add or subtract scalar, vector, or matrix inputs. The output of the sum block is not a group of signals (e.g., a composite signal). Hence, the sum block does not disclose a composite signal as recited in claim 1.

Dwan does not disclose each and every element of claim 1. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejection of claim 1 under 35 U.S.C. § 102(b).

#### B. Claims 2, 4-7 and 11-13

Claims 2, 4-7 and 11-13 depend from claim 1 and, as such, incorporate each and every element of claim 1. In light of the arguments presented above with respect to claim 1, Applicants respectfully request that the Examiner reconsider and withdraw the above rejection of claims 2, 4-7 and 11-13 under 35 U.S.C. § 102(b).

#### C. Claims 14-20

Claim 14 recites similar elements to claim 1. Specifically, claim 14 recites a **composite signal preserving the at least one attribute of each output signal**. Claims 15-20 depend from claim 14 and, as such, incorporate each and every element of claim 14.

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In light of the arguments presented above with respect to claim 1, Applicants respectfully submit that Dwan does not disclose a **composite signal preserving the at least one attribute of each output signal**, as recited by claim 14.

Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the above rejection of claims 14-20 under 35 U.S.C. § 102(b).

D. Claims 14, 16-26, 28-36

Independent claims 14, 21, 25, 29, 33-36 recite similar elements to claim 1. Specifically, amended claims 14, 21, 25, 29, 33-36 recite a **composite signal preserving the at least one attribute of each output signal**. Claims 16-20 depend from claim 14. Claims 22-24 depend from claim 21. Claims 26 and 28 depend from claim 25. Claims 30-32 depend from claim 29. Dependent claims incorporate each and every element of the independent claim upon which they depend.

In light of the arguments presented above with respect to claim 1, Applicants respectfully submit that Dwan does not disclose a **composite signal preserving the at least one attribute of each output signal**, as recited by claims 14, 21, 25, 29, 33-36.

Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the above rejection of claims 14, 16-26, 28-36 under 35 U.S.C. § 102(b).

II. Claim Rejections under 35 U.S.C. § 103

In the Office Action, claims 8, 9, 15 and 27 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Dwan in view of Austin et al., titled, "Structure Matrix Computations with Units" (hereafter "Austin"). Applicants respectfully traverse this rejection.

Claims 8 and 9 depend from claim 1. Claim 15 depends from claim 14. Claim 27 depends from claim 25. The dependent claims incorporate each and every element of the independent claim upon which they depend. In light of the arguments presented above, Dwan does not teach or suggest a **composite signal preserving the at least one attribute of each output signal**, as recited by claims 1, 14 and 25. Austin fails at curing the shortcomings of Dwan with respect to at least this claim element.

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Austin discusses a high-level scripting language that offers a type of checking for expressions and assignments, automatic conversion of systems of units and program control structures for the solution of engineering problems (Abstract). Austin describes the architecture of a computational toolkit called Aladdin, and the data structures, algorithms, high-level scripting language, ad stack machine needed to represent and manipulate units, physical quantity variables, and matrices of physical quantities (page 3, ¶ 4). However, nowhere in the document does Austin teach or suggest a composite signal preserving at least one attribute, as required by claim 1.

Austin, alone or in combination with Dwan, does not teach or suggest a **composite signal preserving the at least one attribute of each output signal**, as recited by claims 14, 21, 25, 29, 33-36.

Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the above rejection of claims 8, 9, 15 and 27 under 35 U.S.C. § 103(a).

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**CONCLUSION**

In view of the above comments, Applicants believe the amendments place the case in condition for allowance. Should the Examiner deem that a teleconference would expedite the prosecution of this application, the Examiner is urged to contact the Applicants attorney at (617) 227-7400.

Please charge any shortage or credit any overpayment of fees to our Deposit Account No. 12-0080, under Order No. MWS-040RCE. In the event that a petition for an extension of time is required to be submitted herewith, and the requisite petition does not accompany this response, the undersigned hereby petitions under 37 C.F.R. § 1.136(a) for an extension of time for as many months as are required to render this submission timely. Any fee due is authorized to be charged to the aforementioned Deposit Account.

Dated: January 16, 2008

Respectfully submitted,

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